B. "IT" QUESTION RESPONSES

To demonstrate that any potential environmental impacts resulting from this initial Part 70 Air Permit Application for the Wood Fiber Division – Louisiana Facility were considered and minimized, the following five "Environmental Impact Questions" have been addressed. The "Environmental Impact Questions" are based on the expanded "IT Decision" questions published on the LDEQ website.

B.1. Have the potential and real adverse environmental effects of the proposed facility or activity been avoided to the maximum extent possible?

Yes. The potential and real adverse environmental effects of the proposed Wood Fiber Division – Louisiana Facility have been avoided to the maximum extent possible. Environmental protection has been considered in the site selection, site layout, engineering design and selection of pollution control equipment associated with the operation of the proposed Wood Fiber Division – Louisiana Facility. The Wood Fiber Division – Louisiana Facility is a state-of-the-art manufacturing facility that will utilize baghouses, an electrostatic precipitator (ESP), a biofilter, urea injection, water based paints, low volatile organic compound resins, and good housekeeping practices to minimize air emissions as well as Best Management Practices (BMP) including but not limited to, vegetative buffers and silt fencing to minimize degradation of water bodies receiving stormwater runoff from the proposed facility. Products associated with the Wood Fiber Division – Louisiana Facility include finished doorskins used in offsite door assembly and JELD-WEN's own formulated water based paints for application at this facility as well as other offsite JELD-WEN facilities. A process description and simplified block flow diagram of the Wood Fiber Division – Louisiana Facility is located in Section II of this Initial Part 70 Air Permit Application.

The proposed operation of the facility and its related emissions and discharges represents no adverse impact with respect to the local community. The Wood Fiber Division – Louisiana Facility's potential and actual adverse environmental effects, and JELD-WEN's efforts to avoid or minimize such effects are described in the following paragraphs.

B.1.2 Air Emissions

By definition, the Wood Fiber Division – Louisiana Facility is considered a major source of air emissions and as such, is regulated under Title V of the Clean Air Act. Regulated facilities are required to submit a complete Part 70 Air Permit Application prior to construction and operation of the subject facility. Additionally, the proposed facility as well as individual emission sources are subject to the following National Emission Standards for Hazardous Air Pollutants (NESHAP) which are Maximum Available Control Technology

(MACT) standards: 40 CFR 63 Subpart DDDD – National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Manufacturing; 40 CFR Subpart QQQQ – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Wood Building Products; 40 CFR Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters and 40 CFR Subpart HHHHH - National Emission Standards for Hazardous Air Pollutants for Miscellaneous Coating Manufacturing (See Sections IV and Sections VI – X of this Initial Part 70 Air Permit Application for detailed regulatory requirements). It is important to note that these MACT standards represent the top 12% of control technologies for an affected source category providing substantial protection to the environment.

This Initial Part 70 Air Permit Application addresses the proposed Wood Fiber Division – Louisiana Facility and outlines all applicable State and Federal regulations, proposed emission limits (estimated emission limits were based on conservative engineering design calculations, established and approved EPA emission factors, source testing at similar facilities, site-specific information, and proposed emission sources for the proposed facility.

B.1.3 Wastewater Discharges

The wastewater and stormwater discharged from the proposed Wood Fiber Division – Louisiana Facility will comply with the requirements of the Louisiana Pollutant Discharge Elimination System (LPDES) permit as required by the Federal Clean Water Act (CWA) and the Louisiana Environmental Regulatory Code Part IX-Water Quality. The Brushy Creek was not listed on the 303(d) list which means water quality standards are being maintained at this time. In addition, the Brushy Creek does not have any designated uses per LAC 33.IX.1123.C. The water body that the Brushy Creek drains into, the Dugdemona River, was included on the 303(d) list; however, no suspected causes of impairment or suspected sources of impairment were listed. The Dugdemona River is designated for Primary Contact Recreation, Secondary Contact Recreation, and Fish and Wildlife Propagation.

The permitted discharge will be made to the Brushy Creek. To minimize water quality impacts, most wastewater streams will be recycled at the facility. The facility will be designed to control stormwater runoff quality through a proactive stormwater pollution prevention program using structural controls such as dikes, curbs, and drains. In addition, best management practices (BMPs) will also be implemented at the facility to minimize and prevent the potential for contamination of stormwater runoff. BMPs include, but not limited to, prescribed site inspections of the process and material storage equipment and the pollution prevention structural controls. Specific BMPs will also be implemented to prevent or minimize site erosion from stormwater runoff.

Neutralization and settling will be the primary technologies for wastewater treatment necessary to comply with the LPDES permit effluent limitations. Neutralization is maintaining pH by using an appropriate acid to adjust pH in the wastewater to within the permitted discharge range of 6.0 to 9.0 standard units.

Other surface water protection measures include the installation of secondary containment for storage tanks holding materials that may have a negative impact on water quality (if spilled). Continuous curbing will be used throughout the facility to provide a barrier between the processing and non-processing areas. These curbs will also useful should a particular area need to be isolated (drainage from these areas can be physically blocked as necessary). While such isolation is not anticipated to be a routine occurrence, JELD-WEN has included this precaution in its design as an additional preventative measure to be effected should an abnormal event occur.

Care and maintenance of vegetation in undeveloped areas of the property will also be provided in order to minimize, an aspect often overlooked in other facility designs, stormwater run-off during rain events. Properly managed vegetation in such undeveloped areas will serve to filter and slow the migration to the receiving streams of silt and nutrients usually associated with non-vegetated or farmed areas.

Additional health, safety, and environmental plans and procedures will be incorporated as an integral part of the Wood Fiber Division – Louisiana Facility's operations and go beyond normal operating procedures established for safe and effective facility operation. These other plans and procedures will provide additional protection to facility personnel, and to the surrounding community and environment by establishing policies, practices, and preventative measures to be employed to avoid or minimize potential adverse effects, including procedures for the proper use of built-in failsafe equipment, emergency shut-offs, controlled shut-downs, and monitoring requirements. In addition, practices included in the Spill Prevention, Control, and Countermeasures Plan (SPCC), Storm Water Pollution Prevention Plan (SP3) and Risk Management Plan (RMP) provide descriptions of equipment, secondary containment mechanisms, and other procedures to preclude surface water contamination. The Wood Fiber Division – Louisiana Facility's Emergency Preparedness and Prevention Plan will also include descriptions and procedures developed to avoid, anticipate, and react to emergency and non-emergency situations which might cause adverse environmental impacts from the plant operations. While it is expected that these types of incidents will be rare, each of these procedures will be put in place as a precaution, and responsible personnel will be thoroughly trained in the implementation of these procedures.

B.1.4 Waste Generation

Due to the design, waste minimization, reuse/recycle efforts, and nature (i.e., essentially using natural wood raw materials) of the proposed manufacturing process, little to no solid or hazardous waste generation is expected. However, the solid and/or hazardous waste that will be generated by the Wood Fiber Division – Louisiana Facility will be managed in accordance with all applicable Federal, State and local laws and regulations. No treatment, storage or disposal of solid or hazardous wastes will be conducted at the facility. When wastes must be transferred off-site, JELD-WEN will utilize approved and properly permitted off-site disposal facilities.

Due to the minimal amount of hazardous waste that will be generated, the facility anticipates being classified as a Conditionally Exempt Small Quantity Hazardous Waste Generator. Hazardous wastes that may be generated will be small quantities related to routine maintenance activities and will be minimized through the practice of source and toxicity reduction policies. Industrial solid waste generation associated with the construction and subsequent operation of the proposed Wood Fiber Division – Louisiana Facility will include boiler ash, office trash, pallets, scrap metal and wood, construction debris, and non-hazardous residual paints or solvents. No solid or hazardous waste units will be constructed onsite. Used oils, spent batteries and other recyclable materials will be shipped offsite to authorized recyclers for reuse.

Additionally, environmental protection at the proposed Wood Fiber Division – Louisiana Facility is further enhanced because all process equipment will be enclosed within buildings having concrete pads and all storage tanks will be equipped with secondary containment. As an additional environmental protection measure, JELD-WEN will not use underground storage tanks.

B.1.5 Surface Water and Groundwater Protection

As mentioned in the discussion of wastewater discharges, JELD-WEN will perform extensive analyses each year of the wastewater discharged through its permitted outfall, Outfall 001, to Brushy Creek. Monitoring results will be submitted to LDEQ in the facilities' Discharge Monitoring Reports (DMRs). The facility will be operated to achieve water quality requirements with no impacts expected to aquatic life.

The proposed Wood Fiber Division – Louisiana Facility will be located outside the 100-year flood plain. There is no anticipated increase in floodwaters either within the plant or the surrounding areas and surface waters. No impact on the drainage basin is expected. No designated state Scenic streams will be affected by the project. Additionally, the site will have no direct and significant impacts to

coastal water, and thus, no coastal use permit is required in connection with the plant.

Since nearly the entire manufacturing process is contained indoors on paved surfaces, little to no impacts to surface water or groundwater is anticipated as a result of this facility. To further protect groundwater and surface water, appropriate Spill Prevention Control and Countermeasures (SPCC) will be employed. All storage vessels within the process units will be equipped with secondary containment consisting of concrete curbing. In addition, these vessels are subject to regular inspections throughout the life of each vessel to assure proper function. All process piping is above grade to allow early detection and containment of any potential leaks or spills. Above grade storage tanks will be used for maintenance wastewater, process wastewater, and potentially contaminated stormwater from the process units. Above grade tank storage eliminate or reduce the potential for groundwater contamination. Any spill or leak that could affect groundwater will be promptly removed to prevent any adverse impact to groundwater. There are no land disposal facilities associated with the new facility.

The specific area of the plant is not within an area that recharges to a major Louisiana freshwater aquifer, according to the "Recharge Potential of Louisiana Aquifers – Shreveport Quadrangle, 1988" compiled by the Louisiana Department of Environmental Quality (Map No. 5). No impacts are thus expected to groundwater aquifers in the state.

There are few water wells in the vicinity of the proposed Wood Fiber Division – Louisiana Facility. A search of the Louisiana Department of Transportation and Development records identified six (6) active wells of various types within a 2-mile radius of the proposed plant. Of these active wells, no wells are used for public supply or irrigation. One well was identified as a rig supply well (likely not active), two wells were identified as industrial wells (at the nearby Dynea plant), and only two wells were identified as domestic supply wells. One well is listed as a USGS observation well. All active water wells, except the U.S. Forest Service domestic well, are completed in the Sparta Aquifer, at depths ranging between 220 feet to 651 feet below ground surface. The closest wells completed in the Sparta Aquifer are located at the nearby Dynea Resin Plant, completed as industrial supply wells at a depth of approximately 650 feet. Preliminary drawdown calculations indicate the proposed plant site water wells will have little to no effect on water levels in nearby domestic water wells screened in the Sparta Aquifer.

B.1.6 Environmentally Sensitive Areas

Environmentally sensitive features reviewed for this proposed project included the following components:

- A review of records documenting registered water wells on or near the subject property from the Louisiana Department of Transportation and Development (LDOTD);
- A review of oil and gas well drilling on or near the subject property from the Louisiana Department of Natural Resources (LDNR);
- A review of the status of the surface water streams in the project area in terms of scenic or aesthetic value and water quality impairment;
- A review of records identifying hydric soils and/or designated wetlands on the property from the United States Department of Agriculture NRCS District Office;
- A review of 100-Year Floodplain boundary maps from the Federal Emergency Management Agency (FEMA);
- A review of demographic information available from the United States Census Bureau, downloaded from the Missouri Census Data Center web site;
- A review of state recreational parks or areas from published maps;
- Requests for archaeological, cultural and/or historical features on the property from the Louisiana Department of Culture, Recreation and Tourism, Office of Cultural Development, Archaeology Division under the auspices of the State Historical Preservation Officer (SHPO);
- Requests for a review of the project's impact, if any, on potential critical habitats and/or listed endangered species from the United States Fish and Wildlife Service (USF&WS) and the Louisiana Department of Wildlife and Fisheries, Louisiana Natural Heritage Program (LDW&F);
- Consultation with LDNR's Ground Water Division with respect to permitting and use of water wells in the Sparta Aquifer in this area of the State;
- A review of the aquifer recharge potential for this area of the State;

The key findings from the sensitive resources review are summarized below:

- The location of the proposed plant site is not within the current 100-year floodplain as currently represented in FEMA's Flood Hazard Boundary Map (Community Panel 220396 0045 A, effective 7/24/1989). According to the designated local floodplain administrator for Winn Parish, a base floodplain elevation has recently been determined for this area of Winn Parish as being at an elevation of 168 feet Mean Sea Level (msl). Given that the only facilities

at or below this elevation will consist of utility lines (power and water), no offsite flood impacts will be exacerbated as a result of this project.

- According to LDNR records (online SONRIS search), no oil or gas drilling activities have occurred on the subject property.
- LDOTD records indicate no active or abandoned water wells are indicated on the subject property. A water well listing of active or plugged wells within the Township 12 North and Range 3 West is provided in Attachment 1. According to this listing, there are six (6) active water wells within two miles of the center of the subject property, most of which are completed in the Sparta Aquifer at depths ranging from 500 feet to 651 feet. The nearest water wells are located at the Dynea Resin Plant, located approximately 0.3 miles northwest of the facility. These wells are completed in the Sparta Aquifer at a depth of approximately 650 feet below ground surface. There is one domestic water well in this radius that is completed in the Sparta Aquifer; this well in nearly two miles from the proposed site.
- The location, siting, and utility layout of the facility were specifically designed to minimize any impacts to potential wetlands. An initial review of hydric soils and designated wetlands on the property from the NRCS District Office indicates that no designated wetland inventories have been conducted in this area of the state (personal communication with NRCS). However, two soil types present on the eastern and southeastern portions of the property are considered to be hydric soils (one of the three wetland criteria) and the NRCS has tentatively labeled some of the areas along Brushy Creek as being potentially a wetland. The 40-acre plant site was moved westward to ensure no wetland disturbance. The area along Brushy Creek is also considered waters of the United States.

  A field survey was performed at the proposed site location and associated utility easements to identify potential wetlands that may be impacted by site construction or site operation. Based on the field survey results, there are no wetlands that will be affected by the construction of the main plant area. Some temporary impacts to jurisdictional wetlands and crossing of waters of the United States are anticipated for the placement of the electrical line that will extend westward from the eastern side of Brushy Creek to the facility, as well as from the wastewater discharge line that will be buried between the plant and Brushy Creek. Construction of these utilities will be permitted under the United States Army Corps of Engineers nationwide Section 404 permit program. These programs and related permits include a number of protective measures to limit any impacts to wetlands during construction of the utility lines.
- The Louisiana Department of Culture, Recreation and Tourism, Office of Cultural Development, Archaeology Division, under the auspices of the State Historical Preservation Officer (SHPO), were contacted via letter to determine whether there are any archaeological, cultural or historical resources that

would be affected by the project. Prior to this submittal, a preliminary review of registered cultural and historical sites at the agency indicated no known sites on or near the property. The SHPO indicated in an August 1, 2006 response that "No known archaeological sites or historic properties will be affected by this undertaking". A copy of this correspondence is included in Attachment 1.

- The USF&WS has indicated in a June 26, 2006 transmittal that there may be listed endangered species that could be affected by the project and have required a one-half mile survey for red-cockaded woodpecker *(Picoides borealis)* sites and onsite review of the earth fruit plant *(Geocarpon minimum)*. The Louisiana Department of Wildlife and Fisheries Natural Heritage Program have similarly stated that rare, threatened, or endangered species may be found within the project area and indicated via a telephone conference that the survey required by the USF&WS will satisfy their requirements.

  A survey to identify any listed rare, threatened and endangered species was conducted at the proposed location of the facility in response to the USF&WS request. Based on field inspection and surveys performed at the project site, there are no threatened or endangered species (i.e., no red-cockaded woodpecker sites or earth fruit plant) that will be impacted by the proposed facility. A report has been submitted to the USF&WS documenting the absence of these species and a response is pending. Correspondence from the USFW&S is provided in Attachment 2.

- The State of Louisiana Department of Wildlife and Fisheries (LDW&F) was also contacted with respect to the presence of sensitive biological resources of concern to the state. The LDW&F responded in a July 21, 2006 letter that "no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries". A copy of this transmittal is provided in Attachment 2.

- A review of state parks and recreational areas indicates there are no state parks or recreational areas in the area that would be affected by the proposed project.

- The Missouri Census Data Center radius report for radii of 1, 3, and 5 miles, indicated there were no residences registered with the 2000 census within three miles of the proposed site. Rural residences were indicated in the report between three and five miles of the proposed site.

- Information obtained during consultation with the LDNR's Ground Water Resources Division indicates that the subject property is technically outside the current Sparta Aquifer "areas of ground water concern". Given the location of the water well with respect to the Sparta Aquifer (near the recharge zone and not in an area of heavy withdrawal), as well as the relatively low

production rate, the project will not have an adverse impact on the current areas of ground water concern. A notification of the proposed water well(s) has been provided to the agency and is currently under review; however, the agency has indicated no initial objections to the proposed project. Preliminary calculations indicate the water supply wells proposed for the plant will have little to no effect on water levels in surrounding water wells screened in the Sparta Aquifer.

- According to the "Recharge Potential of Louisiana Aquifers – Shreveport Quadrangle (Map No. 5 of the Aquifer Recharge Atlas, 1988), the proposed site location is not in an area that recharges to major Louisiana freshwater aquifers. Areas south of the plant site recharge the shallow Cockfield formation, while sediments along the stream to the east recharge the Chicot Aquifer. According to USGS reports (Simulated Response to Pumping Stresses in the Sparta Aquifer, Northern Louisiana and Southern Arkansas: Water Resources Technical Report No. 51, 1991), the outcrop and recharge area of the Sparta Formation is located several miles west of the site. The USGS report further indicates there is approximately 125 feet of the Cook Mountain Formation that acts as a confining unit above the Sparta Formation in the area of the proposed site. The geologic setting therefore provides a natural upper layer of slowly transmissive sediments that impede downward migration of contaminants and protects the Sparta Aquifer in this area of the state.

B.1.7 Release Sources and Pathways

Materials and chemical products stored onsite will have a limited potential for release due to appropriate storage in containers (e.g. drums and tanks) and/or enclosure inside the production plant facility buildings. These products will include resins, waxes, urea, oils (motor, hydraulic, used), water-based paint, and water treatment chemicals. However, in the event of a release, pathways may include releases to air, soils and surface waters. The potential receptors for such releases are limited however due to the rural location of the site, the relatively impermeable nature of the surface soils in this area, the distance to surface water bodies, and the buffer area surrounding the plant. Prior to storage onsite, a Risk Management Plan will be developed to specifically evaluate worst case accident scenarios and alternative scenarios, prepare prevention strategies, and coordinate with local agencies for response in the event of an emergency. Prevention of such incidents is the primary first line of protection however, extensive measures are planned to prevent such occurrences. As an example, oil-filled transformers will be constructed within secondary containment vaults. Furthermore, it is important to note that given the land use in the immediate area, there are no pathways for impacts to cropland or food supplies.

B.1.8 Short and Long Term Effects on Land

The facility is anticipated to require approximately 40 acres of land to be taken out of timber crop production and converted to industrial land. Given the vast timber acreage in the area and the relatively minute industrial development in Winn Parish, no short or long term effects on land are expected to occur.

B.1.9 Noise and Aesthetics

The unique design of the proposed facility includes a key feature – enclosure of nearly the entire process. Enclosure includes not only the main manufacturing lines, but also enclosure of chip piles, conveyance systems, shipping, and receiving. This results in a number of environmental and social benefits including lower ambient noise (further reduced via the planned use of slow mover ventilation fans), particulate control and spill prevention. Another major source of noise, the truck unloading high-pressure blower, is located outside and is planned to operate only during daytime hours.

Odors are not common for this type of process and the only odors of note are those associated with the natural materials (i.e., wood chips) received for use in the facility processes. However, truck deliveries of wood chips are planned only for daytime hours.

In addition, the profile of the facility is aesthetically clean and modern (a photograph of JELD-WEN's existing similar Latvia Plant is provided below as Figure 1). With a main building height of 30 feet, much of the proposed facility will not be visible due to the surrounding timber story; however, some of the proposed stacks (maximum height of 75 feet) may be visible from elevated portions of the highway.

Figure 1
JELD-WEN Latvia Plant, 2006

B.2. Does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility or activity demonstrate that the latter outweighs the former?

B.2.1 Need for the Facility

The nationwide ongoing economic recovery, combined with the reconstruction programs in the aftermath of hurricanes Katrina and Rita have fueled the need for manufacturing facilities that support the home and business building industry. JELD-WEN is a worldwide high quality door and window manufacturer that has grown by anticipating market trends and strategically positioning itself to successfully compete in this market. The Wood Fiber Division – Louisiana Facility fits this strategy and vision.

B.2.1 Environmental Benefits

The location of the site offers significant environmental advantages as compared to other sites or other projects. The location is in a rural, non-environmentally sensitive location that has previously been used for timber crop. Winn Parish is an attainment parish for criteria air pollutants and there are no identified recreational, cultural, archaeological or biologically sensitive features at the proposed site location. The proposed facility location is outside of potential wetlands and the 100-year floodplain, and is not in an area that recharges major aquifers of the state. The location is not within a critical groundwater area for the Sparta Aquifer and little to no effects are anticipated for the few water wells in the area. The receiving stream for effluent, Brushy Creek, is not currently listed on LDEQ's list of impaired water bodies. In addition, the location takes advantage of existing infrastructure (Highway 167 and nearby electrical transmission lines) with the least possible impacts for installing necessary utilities and roads. The environmental impacts of the project have therefore been planned and mitigated to the fullest extent and are far outweighed by the extensive social and economic benefits of the proposed facility.

B.2.2 Economic Benefits

The proposed facility will cost over $90 million to construct and will employ between 150 to 200 persons during 16 months of construction, with most of these jobs coming from Louisiana residents. This construction will therefore have significant economic benefits on a state and local level. Upon start-up of operations, the facility will employ 80 people, 70 of which are hourly positions. Again, most of these jobs are expected to be filled by Louisiana residents. These jobs are anticipated to have an average salary between $30,000 to $40,000 per year, well above the median household income for Winn Parish. Of importance, these jobs will also include full worker benefits. With an anticipated gross annual

revenue of $85 million per year upon reaching full capacity, the proposed Wood Fiber Division – Louisiana Facility will buy goods and services and will pay significant sales taxes to the state and local governments that will fuel economic projects for the area.

The operation of the Wood Fiber Division – Louisiana Facility will further have a substantial positive economic benefit on the economies of Winn Parish and Louisiana due to the "ripple effect" of purchasing goods and services for the plant and by the purchasing effects of its 80 employees and subcontractors. A critical reason for the plant siting at this location is the availability of local service providers to cut, chip, haul and deliver critical wood fiber to the plant, as well as local forest companies to provide the type of wood species needed. All of these service providers will employ workers to meet the demands of this proposed facility. These service providers in turn will acquire and update equipment and facilities as well as staff, further spurring economic activity. The economic impact is therefore multiplied well beyond the basic payroll at the proposed facility.

Despite this economic growth that will result from the proposed facility, no significant negative economic effect is anticipated on the local community as a result of construction or operation. No adverse effects on property values are anticipated since the facility will be located in an unzoned rural area used for timber harvesting with few residents in the area. Future land use is also not expected to be restricted since the surrounding land will continue to be used for timber harvesting. Additionally, any rise in public costs, which is not expected to appreciably increase, will be more than offset by the additional tax base. In fact, the facility will provide its own fire protection capabilities. The need for help from public fire departments is extremely rare and is not expected to increase as a result of the proposed project. Public costs for medical facilities and schools are not expected to be adversely impacted and no new public roads will need to be built as a result of the operation of the proposed facility.

Some increase in traffic volume may occur due to the proposed facility; however, this will occur on U.S Highway 167, which is already in the process of being upgraded using existing dedicated federal and state tax dollars. Existing roads are sufficient to handle the weight of transport vehicles since large trucks that transport timber materials and products to existing wood product industries and customers already use them.

The prospective site will not preclude economic development of the area by other businesses or industries because of any real or perceived risks that may be associated with this proposed project. In fact, the proposed site is anticipated to enhance and attract business and industry to an area that has not experienced significant economic development in a number of years. One of the factors considered by JELD-WEN in terms of this investment is the support and

commitment expressed by local economic developers in Winn Parish that view the proposed Wood Fiber Division – Louisiana Facility as a major economic stimulus for this area of the State.

B.2.3 Social Benefits

No adverse social impacts are anticipated in connection with the proposed Wood Fiber Division – Louisiana Facility. The facility will be constructed within a designated timber crop area of Winn Parish. Weyerhaeuser owns several thousand acres of land surrounding the proposed facility, creating a substantial buffer zone around the plant. The use of this buffer zone as timber land is expected to continue for many years. As shown in Figure 2, a 1990 aerial photograph from the Natural Resources Conservation Service, there are no residences, health care facilities, schools, daycare centers, or other public buildings within this buffer area or anywhere within the immediate vicinity of the proposed plant site.

Information from the Missouri Census Data Center (MCDC) was used to estimate population density within two miles and within four miles of the proposed plant site. Based on a specific radius inquiry of one, three and five miles, census data indicates there were no residences registered during the 2000 census within three miles of the proposed site. The MCDC Demographic Profile Report at a five-mile radius indicated that approximately 974 people reside within that radius. The report also indicated that the population resides entirely in rural areas. The nearest public right of way would be US HWY 167 located approximately 500' to the northwest of the proposed site. The closest residence is located over a mile from the boundary of the proposed plant site. The operation of this facility will therefore not result in any adverse impacts on any segments of the local community but will rather provide significant social and economic benefits.

JELD-WEN is known for its commitment to important educational and environmental projects and programs in the local areas in which it operates, and has been widely recognized for the success of these efforts. JELD-WEN is actively involved in the communities in which it operates and the JELD-WEN Foundation spends millions of dollars every year in the communities in which it operates - from little league baseball fields to library expansion to fine arts development grants.

B.2.4 Long-term Expectations

An investment of this nature by JELD-WEN is necessarily long term with respect to longevity of the facility, markets, and financial viability. JELD-WEN will own and finance the facility as a privately managed company. As the largest privately held company in Oregon with over 200 operations and more than 20,000 employees around the world, JELD-WEN is financially secure and well-

positioned to managed the site. Since there will be no solid or hazardous waste management units at this facility, financial assurance documents with respect to closure or post-closure care are not necessary for the facility. In addition, JELD-WEN has performed a Phase I Environmental Site Assessment with no recognized environmental conditions known to be associated with the site that would require future protection for landowners in the event of the cessation of activities at the facility.

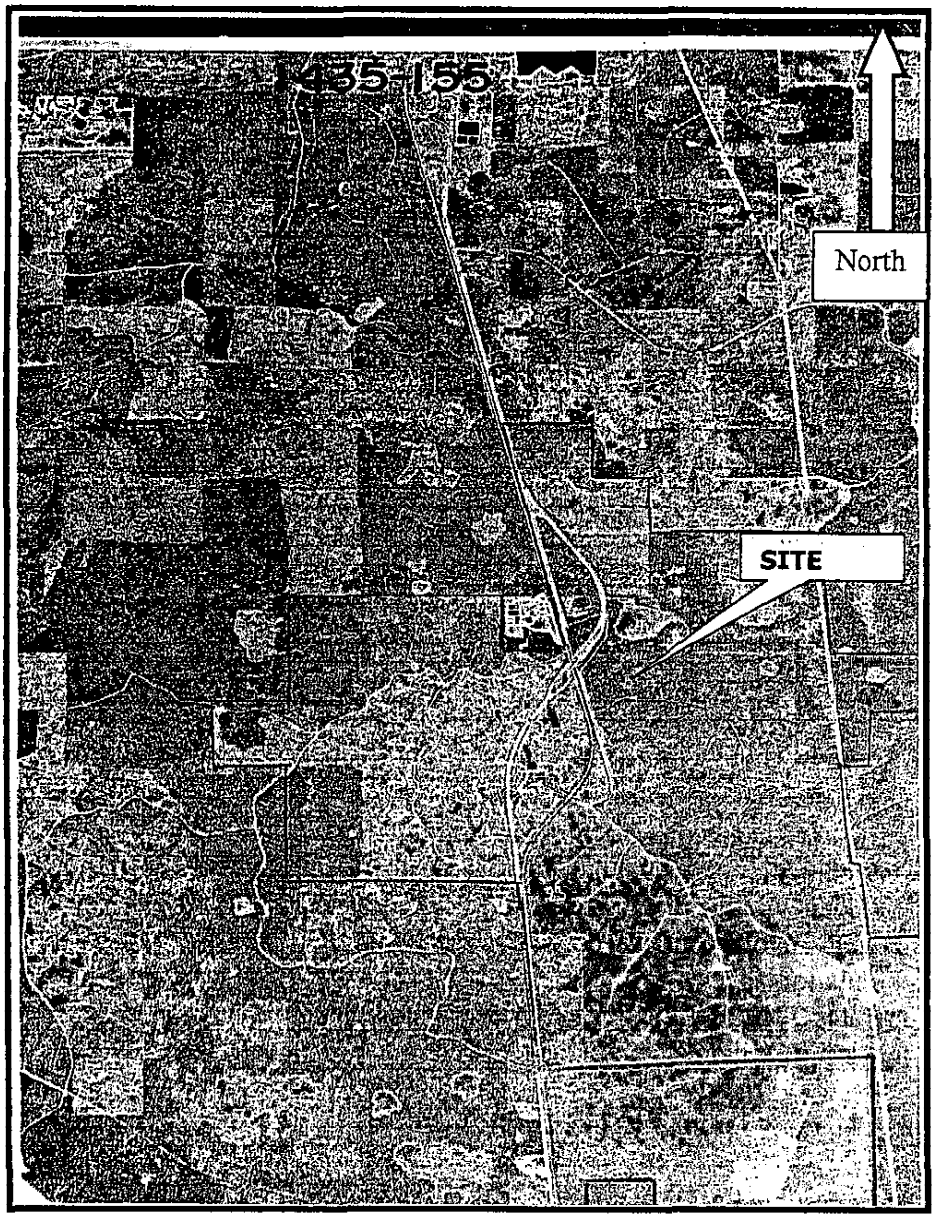

Figure 2
Site Vicinity Map, 1990 Aerial Photograph (Source, NRCS)

B.3 Are there alternative projects which would offer more protection to the environment than the proposed facility or activity without unduly curtailing non-environmental benefits?

B.3.1 Air Emission Control Technology

As previously discussed, the proposed facility will use state-of-the-art emission controls to minimize environmental impacts as much as possible. The emission control technologies have been improved and refined over the past 31 years such that control efficiencies have increased for better environmental protection. Emission control devices that will be employed at the site to minimize air emissions include, but are not limited to the following: baghouses, an electrostatic precipitator (ESP), a biofilter, urea injection, water based paints, low volatile organic compound resins, and good housekeeping practices. Additionally, the proposed facility operations will comply with the following National Emission Standards for Hazardous Air Pollutants (NESHAP) which are Maximum Available Control Technology (MACT) standards, as applicable: 40 CFR 63 Subpart DDDD – National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Manufacturing; 40 CFR Subpart QQQQ – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Wood Building Products; and 40 CFR Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. It is important to note that these MACT standards represent the top 12% of control technologies for an affected source category providing substantial protection to the environment.

B.3. 2 Water Supply Alternatives

In this relatively undeveloped portion of the state, there are no other available sources of water that could service the plant other than ground water. Surface water bodies are too distant to the plant and a surface water intake would have a greater impact on the ecological environment than ground water due to the intake, clarification, treatment and pipelines that would be necessary, as well as being prohibitive from a cost standpoint. The water supply needs have been minimized to the fullest practical extent.

B.3.3 Water Discharge alternatives

JELD-WEN incorporated a number of technology designs for the proposed plant that essentially recycles and reuses water to the fullest practical extent. In fact, these designs have resulted in eliminating wastewater discharges to consist only of boiler blowdown water. This water will be subject to strict water quality criteria under the terms of the LPDES permitting system. Neutralization and cooling settling (no settling ponds) will be the primary technologies for

wastewater treatment necessary to comply with the LPDES permit effluent limitations. Neutralization is maintaining pH by using an appropriate acid to adjust pH in the wastewater to within the permitted discharge range of 6.0 to 9.0 standard units.

With respect to storm water, the facility will be designed to control stormwater runoff quality through a proactive stormwater pollution prevention program using structural controls such as dikes, curbs, and drains. In addition, best management practices (BMPs) will also be implemented at the facility to minimize and prevent the potential for contamination of stormwater runoff.

B.3.4 Spills and Toxics

A number of improvements have been incorporated into the facility design for protection of the environment from potential spills and releases. For example, nearly the entire manufacturing process will be contained indoors on paved surfaces. Little to no impacts to surface water or groundwater is therefore anticipated as a result of this facility. To further protect groundwater and surface water, all storage vessels within the process units will be equipped with secondary containment consisting of concrete curbing. In addition, these vessels will be subject to regular inspections throughout the life of each vessel to assure proper function. All process piping is above grade to allow early detection and containment of any potential leaks or spills. Above grade storage tanks will be used for maintenance wastewater, process wastewater, and potentially contaminated stormwater from the process units. Above grade tank storage eliminate or reduce the potential for groundwater contamination. Any spill or leak that could affect groundwater will be promptly removed to prevent any adverse impact to groundwater. In addition, JELD WEN has designed the facility to eliminate the need for land disposal units or wastewater impoundments.

The raw materials, resins, waxes and other materials used onsite are based on proven and highly reliable processes for this industry and represent the most environmentally friendly technology in use today.

B.3.5 Footprint and utilities alternatives

The layout and footprint of the plant is extremely compact and utilizes land space as effectively as possible. In addition, the right-of-ways or routes for the road, power and utilities are the shortest alternatives and result in the least impact to Brushy Creek when compared to other routes.

B.4 Are there alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits?

No. The site proposed for this project offers both protections to the environment as well as significant non-environmental benefits.

Prior to selection the proposed site, other sites were considered for this project but rejected. The process of site selection involved a methodical screening and ranking process to identify potential areas in the United States for location of a facility of this specific nature. Upon identification of these potential areas, alternative sites were identified that had specific business attributes. Following this process, the sites were compared using both non-environmental and environmental factors. The final site selection was determined to have the most significant non-environmental benefits with no known environmental disadvantages. A more detailed summary of this process is provided below.

B.4.1 Alternative Sites Evaluations

The site was selected following a process that involved regional screening, area screening, alternative site selection, site ranking and final site selection.

Regional Screening

The initial screening step for selecting the site location was based on two key attributes that are necessary for manufacture of the designated product: a) the availability/quantity of desirable wood fiber and b) the assurance of future availability of the desirable wood fiber. As a result, four (4) states in the United States were identified as potential sites: Texas, Louisiana, Missouri and Mississippi. Of these states, Louisiana was ranked as the highest due to having the following characteristics: 1) it grows more of the desirable wood fiber required for the production of doorskins than any of the other states; and 2) it has the highest certainty of long term use of the land (many other states have mostly private tree plantations, thus higher risk).

Area Screening

Following identification of Louisiana's advantages, specific areas in the state were identified that had an abundance of the necessary wood fiber (primarily sweet gum varieties) that could provide raw materials to the proposed plant. This screening was conducted with the assistance of federal and state forestry agencies as well as local economic development agencies. As a result, a number of potential areas were identified as potential locations for the plant.

Further screening was performed by identifying geographic locations that were proximal to both the wood fiber as well as local contractors with the capability to

provide necessary services to economically log, chip and deliver the desired wood fiber. A number of sites were rejected during this screening, due either to lack of existing experienced contractors, excessive trucking costs or distance to high density of preferred wood species.

Alternative Sites Identification and Ranking

The area screening process resulted in a total of 5 potential sites that possessed the key attributes necessary for providing materials and services for the proposed plant site. Three of these sites were in Winn Parish, one site in DeSoto Parish, and one site in Allen Parish. These sites are discussed below.

DeSoto Parish Site

The potential site in DeSoto Parish is located in an industrial park in Mansfield, Louisiana. Of all of the alternative sites, this site was ranked as least preferred due to its distance from the desired wood fiber market and the lack of local contractors necessary for logging, chipping and trucking.

Allen Parish Site

The potential site in Allen Parish is located next to an existing wood mill near Oakdale, Louisiana. The site offered certain advantages with respect to infrastructure and some contractor availability, but ranked behind the Winn Parish sites with respect to both, the desired wood fiber market stability and contractor capabilities.

Winn Parish Sites

The three sites in Winn Parish all ranked higher than the other two sites with respect to the desired wood fiber markets and contractor availability and capabilities. The three sites were therefore evaluated further using a combination of site development costs and environmental impacts.

Final Site Selection

Based on a comparative review of the three Winn Parish sites, the site development costs and environmental impacts were determined to be approximately equal for all three sites except for two critical aspects of the project: proximity to a high energy electrical transmission line for powering the plant and proximity to a viable stream for conveyance of treated wastewater effluent. A comparison of the three Winn Parish sites indicated that the selected site south of Dodson required the shortest electrical transmission line corridor and the shortest wastewater line corridor thus, resulting in the least impact to the environment in terms of acreage disturbed for the necessary new right-of-way. This shortened distance for utilities at the Winnfield site also resulted in the

lowest cost to install the necessary right-of-way. The Winnfield site also had distinct advantages over the other two Winn Parish sites due to its proximity to a major U.S. Highway, to wood fiber suppliers and to the nearby Dynea Resin plant as a source and storage base for resin materials necessary for doorskin manufacturing.

Further review was performed of the Winnfield site to determine any previously unidentified environmental conditions. This review indicated that there were no known or designated wetland inventories, floodplains, cultural sites, recreational sites, designated land uses or habitat, or other environmentally sensitive features associated with the Winnfield location. A Phase I Environmental Site Assessment was performed which indicated no recognized environmental conditions in connection with the proposed property. The Winnfield location in Winn Parish was subsequently selected as providing the greatest amount of non-environmental benefits while offering the greatest protection to the environment as compared to the alternative sites considered for this project.

B.4.2 Environmentally Sensitive Areas

No impacts to environmentally sensitive areas are anticipated as a result of this project. As discussed previously, the proposed site location and layout have been selected to avoid any impacts to listed threatened and endangered species, cultural resources, archaeological resources, wetlands, recreational areas, specially designated wildlife habitat, scenic streams or critical ground water withdrawal areas. Installation of necessary utilities and associated right-of-ways will be performed in accordance with applicable available general permits or nationwide permits that incorporate best management practices.

B.4.3 Zoning and Land Use

The site and surrounding vicinity has historically been used for timber crop by Weyerhaeuser and was recently clear-cut for harvesting. The proposed site is unzoned and will likely eventually be rezoned for industrial/commercial land use. The site location is not impacted by past industrial or commercial land use such that deed recordations or other instruments are necessary for restricting site use.

B.4.4 Flood and Hurricane Susceptibility

The site location is not within the 100-year flood plain, according to the most recent FEMA Flood Hazard Boundary Map (1989). The base flood elevation has recently been determined by the local Floodplain Administrator in Winn Parish to be at an elevation of 168 feet above mean sea level. Based on this elevation, no offsite flood impacts are expected as a result of the construction of this facility.

Winn Parish is located within north-central Louisiana. While this area is susceptible to the path of hurricanes originating in the Gulf of Mexico, its distance

from the Gulf Coast is such that damage from hurricanes is not a significant risk to the site. The facility will be designed to meet applicable building codes. In addition, the majority of chemical storage will be contained within the main processing building that will provide protection from wind and rain during major storms.

B.4.5 Ground Water Protection

Soils in this area do not recharge a major aquifer system in Louisiana, according to LDEQ Aquifer Recharge Maps. The Cockfield formation is a confining unit that overlies and protects the deeper Sparta Formation, the major aquifer of this part of the State.

Water supplies needed for cooling and process water are available only from ground water in this area of Louisiana and the Sparta Aquifer is the only potable source of water with sufficient quantity and quality to service the proposed plant. In the area of the plant however, the Sparta Aquifer is not used extensively and is not within one of the three critical groundwater areas that have shown significant declines in water levels. The plant is proposing to withdraw a total of approximately 100 gallons per minute (approximately 144,000 gallons per day) out of one of the sand units of the Sparta Aquifer. Two water wells will be installed; however, only one well at a time will be used during production with the other well serving as a backup supply. Due to the nearness of the recharge boundary and the high transmissivity characteristics of the aquifer in this area, drawdowns in static head of the aquifer are not anticipated to be significant. The nearest water wells are industrial wells located at the Dynea Resin plant 0.3 miles to the northwest and little to no impact is expected on any of the surrounding water wells screened in the Sparta Aquifer.

B.4.6 Health Risks to Potential Receptors

Materials and chemical products stored onsite will include wood chips, resins, waxes, urea and water-based paints. Hazardous materials will be inventoried and a list of chemicals and quantities provided to local emergency responders in accordance with SARA Community Right-to-Know regulations. Copies of Material Safety Data Sheets will be maintained on file and available to workers and responders in the event of an emergency. In addition, a Storm Water Pollution Prevention Plan will be developed in accordance with a Multi Sector Storm Water permit for any storm water that comes in contact with industrial activities that will provide for measures to prevent and contain releases to the environment. Prevention of such incidents is the primary first line of protection however; extensive measures are planned at the facility to prevent such occurrences. Potential receptors in the event of a release, considered extremely unlikely, are limited due to the rural location of the site, the relatively impermeable nature of the surface soils in this area, the distance to surface water bodies, and the buffer area surrounding the plant. The facility will be the first

level of response for minor spills and emergencies and designated JELD-WEN emergency response personnel will be provided with the necessary training, equipment and support to address incidents as necessary.

B.4.7 Air Quality Protection (including vapors and odors)

As previously noted, the proposed facility will use state of the art emission controls to minimize environmental impacts as much as possible. The emission control technologies have been improved and refined over the past 31 years such that control efficiencies have increased for better environmental protection. Emission control devices that will be employed at the site to minimize air emissions include, but are not limited to the following: baghouses, an electrostatic precipitator (ESP), a biofilter, urea injection, water based paints, low volatile organic compound resins, and good housekeeping practices. Additionally, the proposed facility operations will comply with the following National Emission Standards for Hazardous Air Pollutants (NESHAP) which are Maximum Available Control Technology (MACT) standards, as applicable: 40 CFR 63 Subpart DDDD – National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Manufacturing; 40 CFR Subpart QQQQ – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Wood Building Products; 40 CFR Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, and 40 CFR Subpart HHHHH - National Emission Standards for Hazardous Air Pollutants for Miscellaneous Coating Manufacturing. It is important to note that these MACT standards represent the top 12% of control technologies for an affected source category providing substantial protection to the environment (See Sections IV and Sections VI – X of this Initial Part 70 Air Permit Application for detailed regulatory requirements).

Also, odors are not common for this type of process and the only odors of note are those associated with the natural materials (i.e., wood chips) received for use in the facility processes. Further, because the majority of the proposed processing operations will be enclosed within a building, vapors as well as any odors will further be minimized.

B.4.8 Physical Site Characteristics

Climate

According to the Southern Climate Center of LSU, an average temperature of 63 degrees with the average monthly temperatures characterizes the climate of this part of the state in January and July being 51 degrees and 82 degrees, respectively. Average rainfall in Winn Parish is 53.2 inches per year. A summary of key climate indicators in Winn Parish is provided below in Figure 3.

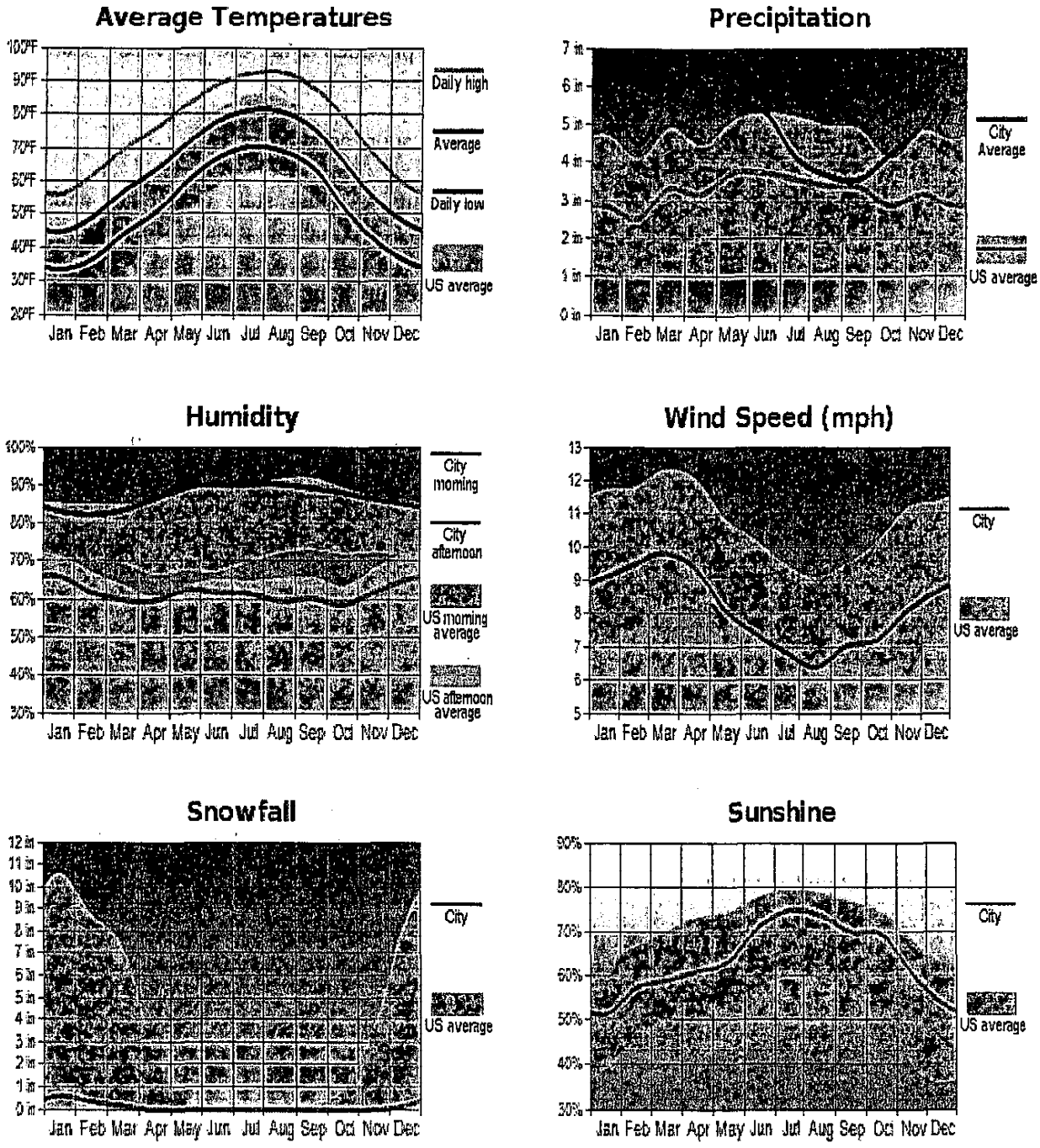

Figure 3 - Average climate in Winnfield, Louisiana

Topography

According to the United States Geological Survey 7 ½ minute topographic map "Dodson", 1989, the topography in this area is gently rolling with moderate slopes

along streams (See Figure 4 below). The 40-acre site upon which the facility will be constructed is located on an easterly sloping topographic ridge with average elevation of approximately 190 feet above msl. The site is bordered by drainages to the north and south of the site, with the major topographical feature being the slopes along Brushy Creek approximately 2,000 feet to the east of the 40-acre site.

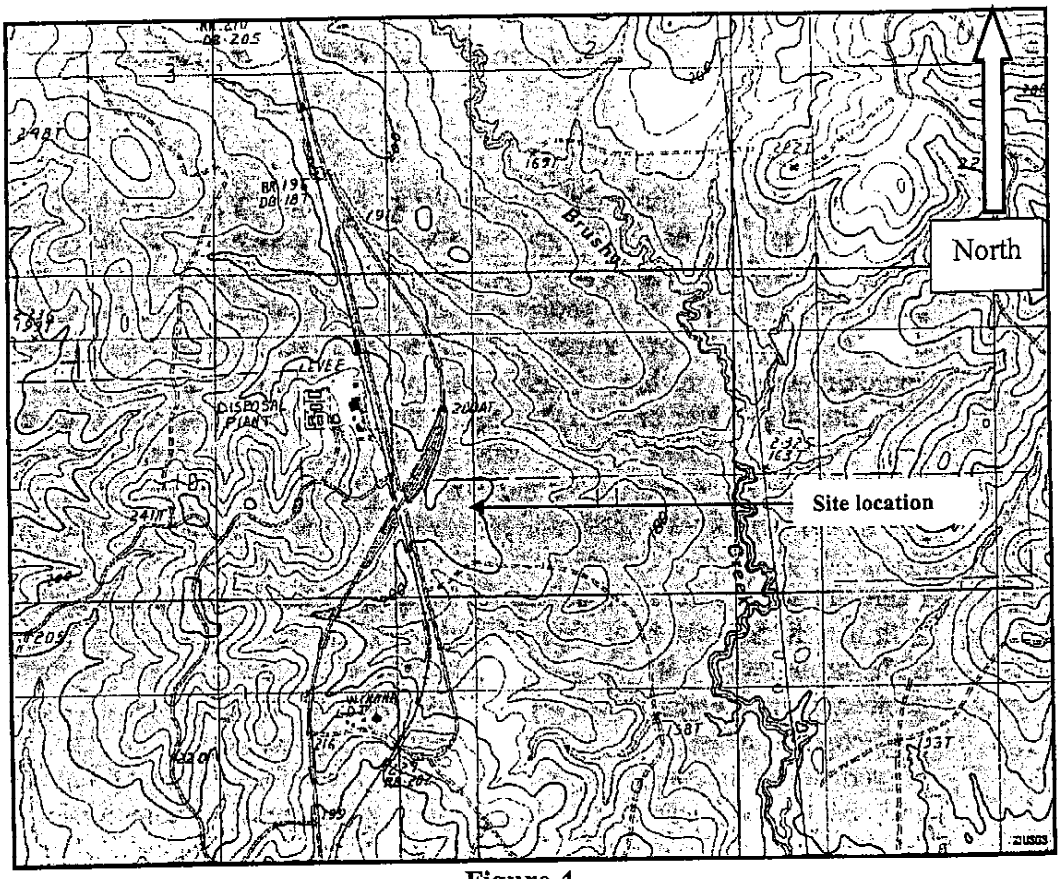

Figure 4
USGS 7 ½' topographic map "Dodson", 1985

Surface Waters

The drainages north and south of the site are typically dry, but convey storm water flow eastward into Brushy Creek. Brushy Creek is a small volume stream typified by low flow during most of the year. Brushy creek flows southward for approximately 7 miles where it empties into the Dugdemona River. The Dugdemona River ultimately drains into the Little River 24 miles southeast of the proposed site near the juncture of Grant, Winn and LaSalle Parishes. The Little River Wildlife Management Area is located along Little River several miles south of this juncture.

Brushy Creek was not listed on the LDEQ's 303(d) list which means water quality standards are being maintained at this time. In addition, Brushy Creek does not have any designated uses per LAC 33.IX.1123.C. ENVIRON also included in its' review the water body that Brushy Creek drains into which is the Dugdemona River. The Dugdemona River was included on the 303(d) list; however, no suspected causes of impairment or suspected sources of impairment were listed. The Dugdemona River is designated for Primary Contact Recreation, Secondary Contact Recreation, and Fish and Wildlife Propagation.

Soils

According to the "Soil Survey of Winn Parish" by the National Resource Conservation Center, 1990, soils across the majority of the 40-acre site are associated with the Bellwood loam, a gently sloping and somewhat poorly drained soil common to broad ridgetops and upper side slopes. Red clays are typical down to a depth of approximately 43 inches and overlies a gray silty clay down to approximately 73 inches. Water and air move through this soil at a very slow rate, although water erosion hazards and runoff are considered moderate. The soils have a moderate to high water capacity and the seasonal high water table ranges from 2 to 4 feet below the surface between December and April of most years. The shrink-swell potential is very high in the subsoils of this series.

There are some severe limitations for building in these soils, primarily associated with the characteristics of slow permeability, low relative strength for roads and high shrink-swell potential. These limitations can be managed through proper geotechnical analysis and design of footings and foundations. A preliminary geotechnical investigation was performed on an adjacent tract of land owned by Weyerhaeuser that provides information for foundation construction planning and will be supplemented by site-specific geotechnical studies prior to site development.

Geology

According to the "Geological Map of Louisiana" by the Louisiana Geological Survey, 1984, the site is located on the outcrop of the Eocene Cockfield Formation, generally described as brown, lignitic clays, silts and sands. The overlying formation is the downdip edge of the Eocene Cook Mountain Formation. Immediately east of the site along Brushy Creek are Quaternary age sediments that overlie the Cockfield Formation. Field reconnaissance indicates that the Catahoula sandstone equivalent outcrops in Brushy Creek, east of the site. No surface expression of faults or other seismic features are indicated on the Geological Map of Louisiana.

Hydrogeology

Based on information from USGS (personal communications and published literature), freshwater beneath the site occurs in two major aquifers from shallow alluvial deposits at depths of approximately 50 feet to depths approximately 600-700 feet within the general area of the subject property. From shallowest to deepest, these aquifers include the Cockfield Formation Aquifer and the Sparta Sand Aquifer. Nine (9) of the water wells drilled near the site (not all are still active) were completed in the Sparta Sand and one was completed in the Cockfield Formation aquifer.

The Sparta Aquifer system is within the Eocene Sparta formation of the Claiborne group. The aquifer units consist of fine to medium sand with interbedded coarse sand, silty clay and lignite. The aquifer is actually of a number of interbedded sand beds between approximately 220 feet to almost 700 feet below ground level. Interconnected sands become more massive and coarsen slightly with depth and are laterally discontinuous. The deep units are generally more transmissive (produce greater quantities of water per foot of drawdown) than shallower units. The Sparta aquifer is confined downdip by the clays of the overlying Cook Mountain formation and the clays and silty clays of the Cane River formation. The Sparta aquifer is recharged through direct infiltration of rainfall, the movement of water through overlaying terrace and alluvial deposits and leakage from the shallower Cockfield and deeper Carrizo-Wilcox aquifers. The Sparta is pumped in a large area of north central Louisiana and in a narrow band through Natchitoches and Sabine parishes. A saltwater ridge below the Red River valley separates the two areas. Ground water movement in the Sparta Aquifer is regionally eastward toward the Mississippi River Valley and Southward toward the Gulf of Mexico, except when altered by heavy pumping and the hydraulic conductivity varies between 25 to 100 feet per day.

According to USGS potentiometric maps, groundwater flow in the Sparta in the area of the site is generally northward, but is expected to be influenced by pumpage at the Dynea Resins plant to the northwest of the property. In the immediate area, the aquifer averages 300 feet in thickness (individual beds of typically 50 feet) and has a maximum thickness of 600 feet. Published transmissivity and hydraulic conductivity values are 400 gpd/ft^2 and 50,000 gpd/ft respectively, with specific capacities of approximately 30 gpm/ft of drawdown on average. Water quality data from wells in the area of the project completed in the Sparta Sand Aquifer are available from the USGS office in Baton Rouge as well as from publications.

B.5 Are there mitigating measures which would offer more protection to the environment than the facility as proposed without unduly curtailing non-environmental benefits?

No. There are no additional mitigating measures that would offer more protection to the environment than the facilities as proposed without unduly curtailing non-environmental benefits. A summary of the measures implemented to eliminate or minimize impacts to the environment is provided below.

Mitigating measures implemented to date began with site selection and layout to prevent impacts to wetlands or other sensitive environments as well as minimization to the fullest extent of utility easements needed to service the facility. The site is located on a recently cleared section of timber property in a sparsely populated rural area that has no sensitive environmental resources in the area of construction. The right of way needed for the power and water lines are the shortest possible routes available and will result in the least amount of disturbance in the vicinity of Brushy Creek. Installation of the necessary utilities that do involve temporary crossing or disturbance of jurisdictional wetlands or waters of the United States will incorporate best management practices as specified in the applicable nationwide US Army Corps of Engineer permits during construction. JELD-WEN will retain a buffer of trees around the plant.

The site location is closest to the providers of the sweet gum varieties of timber crop that will serve as the raw material for the plant. The proximity to these supplies results in minimization of distance for hauling raw products to the plant.

Air pollution control measures will include, but are not limited to the following: baghouses, an electrostatic precipitator (ESP), a biofilter, urea injection, water based paints, low volatile organic compound resins, and good housekeeping practices. These state of the art emission controls are specifically designed to control PM/PM_{10}, NO_x, and VOCs including HAP/TAP emissions. Additionally, engineering design measures (i.e., total enclosure of process operations and only daytime operation of specified process equipment) will assist in minimizing any potential odor and/or noise generated by the proposed processes. Furthermore, compliance with all applicable regulations, some of which are MACT standards, will ensure the utmost protection of the environment. As such, no further improvements are feasible with respect to maintaining the economic viability of the proposed project.

The Wood Fiber Division – Louisiana Facility processes have been designed to result in minimization of solid and hazardous wastes to the fullest extent. As an example, 40% of boiler fuel will be comprised of recovered waste materials from the process, resulting in a significant reduction in waste generation requiring offsite disposal. Other waste reduction efforts include the use of non-toxic alternative products whenever possible, recycling and reuse. Any waste generated

will be segregated with compatible wastes and containerized in suitable containers and stored for brief intervals during collection prior to being shipped off-site for proper disposal. Wastes will not be stored in contact with the land, and tanks have been designed with secondary containment provisions, which will provide adequate volume for tank contents.

With respect to mitigation of water supply requirements, the process inherently requires relatively minor quantities of high quality water. The engineering design has been critically reviewed and modified to ensure that water reuse is accomplished to the fullest extent without curtailing non-environmental benefits of the process.

Wastewater treatment measures implemented for the plant are considered to be state of the art technologies for reliably meeting required effluent outfall limits prior to discharge to Brushy Creek. The wastewater treatment process includes reuse of water wherever possible with neutralization prior to discharge. All wastewater discharges from the proposed Wood Fiber Division – Louisiana Facility will be regulated under the LPDES program and wastewater will be treated to meet strict permitted effluent standards. Based on established numerical water quality criteria, JELD-WEN's wastewater discharges to Brushy Creek will not cause degradation of that waterbody, will have no impact on drinking water, and will not cause any violation of applicable water quality standards. Installation of concrete pads, continuous curbing, and/or secondary containment dikes around all processing areas and equipment enhance environmental protection at the Wood Fiber Division – Louisiana Facility. Process piping and equipment are installed above ground for ease of inspection, detection of leaks, and routine maintenance. These measures minimize waste associated with cleanup should materials accidentally spill from a process during operations, even though such incidents are infrequent.

Other mitigating measures incorporated at the facility include enclosure of chip piles and the production line for noise suppression and particulate control. Operating certain exterior sound-producing equipment during daylight hours only will further reduce noise.

JELD-WEN will adhere to strict environmental practices and procedures for monitoring and maintaining full regulatory compliance. JELD-WEN will also maintain quality assurance controls for additional environmental protection. These controls include use of contract LDEQ-certified laboratories for analytical requirements associated with environmental compliance monitoring. In addition, JELD-WEN will maintain administrative controls in the form of procedures for off-site shipments of wastes, segregation of non-compatible materials, handling of containerized materials, and implementation of Best Management Practices as part of a site specific Storm Water Pollution Prevention Plan and associated Multi-Sector General Storm Water Permit.

C. CONCLUSION

The Wood Fiber Division – Louisiana Facility has been sited, designed and planned to eliminate or minimize environmental impacts to the fullest extent while offering substantial non-environmental benefits to the local and state economy. The plant will be permitted and operated to adhere to strict environmental rules/regulation for the protection of air, water and sensitive environmental resources, consistent with JELD-WEN's environmental, health and safety policies.

The site development is in a rural area historically used for timber production and will not adversely impact sensitive species or habitat, cultural or historical resources, protected streams, sensitive land management areas, recreational areas or prime cropland. No wetlands are associated with the main site development and installation of necessary power and water utilities will be performed within strict guidelines of the general and nationwide permit requirements of the U.S. Army Corps of Engineers. With respect to air quality, Winn Parish is not a designated nonattainment parish for criteria air pollutants; no degradation in regional air quality is therefore expected. With respect to water quality, Brushy Creek is not currently listed on the state's impaired water body list and does not have specified water use criteria. Stringent water quality limitations will ensure no impairment of the stream. No solid or hazardous waste will be treated, stored or disposed on the site; any wastes generated from the process or associated facilities, estimated to be minimal, will be properly contained, managed and disposed offsite at a permitted disposal facility.

In addition, JELD-WEN will adhere to strict environmental practices and procedures for monitoring and maintaining full compliance. Periodic monitoring of water supply wells, water discharge sampling, and specific point source stack testing will be conducted according to stringent EPA protocols and LDEQ specifications and schedules. Environmental risks will be minimized by incorporating environmental considerations into process design and by appropriate, on-going training of facility employees and contractors.

JELD-WEN will also maintain quality assurance controls for additional environmental protection. These controls include use of contract LDEQ-certified laboratories for analytical requirements associated with environmental compliance monitoring. In addition, the facility will maintain administrative controls in the form of procedures for off-site shipments of wastes, segregation of non-compatible materials and handling of containerized materials. All process areas at the proposed Wood Fiber Division – Louisiana Facility will be constructed on concrete pads. Process piping and equipment will be installed above ground for ease of inspection, detection of leaks, and routine maintenance.

Air quality will be maintained by engineering design and emission controls that will include, but not limited to the following: baghouses, an electrostatic precipitator (ESP), a biofilter, urea injection, water based paints, low volatile organic compound resins, and

good housekeeping practices. Process wastewater will be routed to the wastewater treatment system for treatment prior to discharge through a permitted outfall. All discharges from the proposed facility will be regulated under the LPDES program, and wastewater will be treated to permitted effluent standards. Based on established numerical water quality criteria, the proposed facility's wastewater discharges to Brushy Creek will not cause degradation of that waterbody, will have no impact on drinking water, and will not cause any violation of applicable water quality standards.

Water supply from the Sparta Aquifer is considered to be moderate in terms of quantity. Due to the remote and geologically updip location of the plant, no significant impairment to regional water levels or nearby water wells is anticipated. The plant design has been modified to ensure water use is minimized to the fullest possible extent through recycling and reuse.

Noise and odor are maintained due to the majority of the operations indoor as well as limiting certain equipment to daylight hours. The remote location of the facility east of Highway 167 as well as a timber buffer around the plant provides for lower risk to potential receptors in the event of an emergency. Nevertheless, various emergency response plans such as a Storm Water Pollution Prevention Plan will be implemented to prevent such an incident at the plant.

Weighed against the lack of significant environmental impact are the substantial non-environmental benefits of the proposed Wood Fiber Division – Louisiana Facility. In addition to as many as 200 direct construction jobs over 16 months and 80 direct permanent high quality jobs with benefits, the facility is anticipated to generate significantly in terms of economic impact as well as generating significant annual local, state and federal taxes per year. The economic impact of the plant will be felt in this economically distressed region as contractors and suppliers provide goods and services to the new facility. Despite this impact, there are no expected burdens expected for local police, fire or infrastructure due to the internal capabilities and resources to be provided at the facility by JELD-WEN. The extensive non-environmental benefits for the development thus far outweigh any residual environmental impacts or costs that might be realized.